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R E M A R K S

Cancellation of existing claims and submission of new claims

Applicants have chosen to cancel existing claims 27 through 38 and submit new claims 47 through 68 which more precisely delineate the novel and unobvious features of the instant invention. New claims 47 through 68 effectively and definitively distinguish Applicants' invention from the Cousens et al. parent application Serial Number 06/717,209 [hereinafter referred to as '209] cited by the Examiner. Applicants are of the opinion that the Examiner's appreciation and understanding of the instant invention's patentability will be readily forthcoming upon his consideration of new claims 47 through 68.

Cousens et al. U.S.S.N. 06/717,209 as Prior Art

As a threshold matter, Applicants take exception with the Examiner's characterization of the Cousens et al. abandoned, parent application Serial No. 06/717,209 [hereinafter referred to as '209] as a prior art reference for the purposes of section 103. Applicants believe that use of the Cousens et al. '209 reference as prior art is contrary to the holding of the Court of Customs and Patent Appeals (C.C.P.A.) in In re Wertheim, 646 F.2d 527 (C.C.P.A. 1981).

Before discussing the substance of their legal objection, Applicants wish to summarize the pertinent prosecution events in the instant case. During prosecution of the instant application, Applicants swore behind the filing date of the Cousens et al. continuation-in-part patent U.S. 4,751,180 [hereinafter referred to as '180] which derived from the abandoned Cousens et al. '209 reference. By so doing, Applicants successfully eliminated the continuation-in-part patent as a prior art reference. But, by applying a relation-back principle purportedly pursuant to

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35 U.S.C. § 120, the Examiner ruled that the abandoned Cousens et al. '209 parent application would remain in the instant case as prior art under section 102(e) for section 103 purposes since the '209 reference antedated Applicants' declaration. In essence, the inventors of the patentable subject matter in U.S. '180 were afforded the exclusionary benefit of the abandoned parent application's earlier filing date under the auspices of section 120. Thus, according to the Examiner's reasoning, Applicants must now demonstrate that the instant invention is patentably unobvious over the Cousens et al. '209 prior art reference.

The circumstances under which the relation-back principle of section 120 may be applied are carefully described in In re Wertheim. In Wertheim the C.C.P.A. addressed the issue of when a patent is entitled to the benefit of the filing date of a remote application. Specifically, the court stated that "an abandoned application by itself can never be a reference." Id. at 535. According to Wertheim, the critical legal issue is whether the invention claimed in the subsequent patent finds a supporting disclosure in compliance with section 112, as required by section 120, in the abandoned application so as to entitle that invention to the filing date of the abandoned application for prior art purposes. Id. at 537. If the disclosures of the remote application do not fully support a claim in the patent, or if the claims of the subsequent patent derive essential support from new matter added by later continuation-in-part applications, then it is not effective for prior art purposes under section 102(e) and 103 as of the remote filing date. This is true even though the disclosed matter in question appeared in the remote application and is carried forward into the patent. In this regard, the court stated:

We emphasize that the above noted statutes, §§ 102(e), 120, and 112, speak with reference to some specific claimed subject matter It is axiomatic in patent law that questions of description, disclosure, enablement, anticipation, and obviousness can only be discussed with reference to a specific claim which identifies "the invention"

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referred to in the statutes.

Thus, the determinative question here is whether the invention claimed in the [subsequently issued patent] finds a supporting disclosure in compliance with § 112, as required by § 120, in the [remote application] so as to entitle that invention in the [subsequent patent], as "prior art," to the filing date of [the remote application]. Without such support, the invention, and its accompanying disclosure, cannot be regarded as prior art as of that filing date.

Id. at 537 (emphasis added).

Furthermore, Wertheim criticized and accordingly modified two C.C.P.A. cases which relied merely on the fact that disclosures in remote or abandoned applications had been "carried over" to later applications as satisfying section 120. (The two modified cases are In re Switzer, 166 F.2d (C.C.P.A. 1948) and In re Lund, 376 F.2d 982 (C.C.P.A. 1967), both of which are cited at page 900-1 of the MPEP (Nov. 14 1992).)

Wertheim is particularly relevant to the instant case which involves an abandoned parent application and the continuation-in-part patent derived therefrom. As pointed out by Wertheim, new matter can add material limitations which transform an unpatentable invention into a patentable one. A continuation-in-part application does not necessarily insure that all critical aspects of the later application were present in the parent. Thus, in such a situation, only a remote application disclosing the patented invention as required by section 112 before the addition of new matter can be relied upon to give the subsequent patent the benefit of the earlier filing date for the purpose of supporting a section 102(e)/103 rejection. Id.

Applying Wertheim to the instant case, the Cousins et al. '209 reference can not properly be characterized as prior art. As was the case in Wertheim, there are claim limitations in the Cousins et al. '180 patent missing from the Cousins et al. '209 parent application. For example, Applicants refer the Examiner

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to issued claims 16, 19, and 20-22 in the Cousens et al. '180 patent reference. These claims, as well as their substance, are absent from the '209 abandoned parent application. Also absent from the '209 parent is any supporting specification for such claims; compare the Table on page 15 and the specification on page 5 of the abandoned parent application with column 4 and Table 1 of the issued continuation-in-part patent.

Furthermore, Applicants submit that, upon reading the '180 patent, it is clear that the above-referenced limitations are a necessary part of the patentable invention as set forth in the issued continuation-in-part. These limitations, however, were neither expressly nor inherently part of the Cousens et al. '209 parent application. Thus, absent these limitations, reliance on the earlier filing date and use of the '209 reference as prior art is not legally permissible and in direct contravention of the Wertheim rule.

In conclusion, without the benefit of the earlier date, Applicants above-mentioned declaration is sufficient to eliminate consideration of any Cousens et al. reference, in whole or in part, as prior art to be combined with another reference to support a section 103 rejection. Thus, Applicants respectfully submit that newly submitted claims 47-68 are in condition for allowance.

Explication of the instant invention

As discussed above, Applicants take exception with the Examiner's improper characterization of the Cousens et al. '209 parent application as a prior art reference. Furthermore, Applicants also disagree with the Examiner's previous conclusion that the claimed subject matter of the instant application is unpatentably obvious in view of the Cousens et al. '209 reference. Applicants respectfully urge the Examiner to consider the following explication of the instant invention.

As defined by new independent claim 47, the invention is a

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fused polypeptide which comprises a combination of distinct, separate amino acid sequences. Said combination endows the overall fused polypeptide with intrinsic operativeness not associated with any one of its distinct component parts. This intrinsic operativeness is, in essence, a consequence of the structural and conformational features imparted to the fused polypeptide by said combination. Applicants refer the Examiner to Figure 2 of their application for a pictorial representation of one of the combinations contemplated by Applicants' invention, and the structural and conformational features which directly result from said representative combination. Important to an appreciation of the instant invention's patentability is understanding that the eventual recovery of that component of said fused polypeptide known as the selected target polypeptide is directly facilitated by the fused polypeptide's structural and conformational features. Absent from the Cousens et al. '209 parent application is any disclosure, or suggestion, that the inventors contemplated a combination of separate, distinct amino acid sequences which together endow the fused polypeptide with structural and conformational features critical to operativeness.

Rejection of Claims 27-38 under 35 U.S.C. § 103

The Examiner has rejected claims 27-38 under 35 U.S.C. § 103 as being unpatentable over Cousens et al. in view of Cohen et al. In view of the above discussion of In re Wertheim, the Cousens et al. '209 reference must be removed as a prior art reference in the instant case, thereby obviating the Examiner's section 103 rejection. Even if the Examiner continues to rely upon the Cousens et al. '209 reference as prior art for purposes of section 103, however, Applicants believe that the instant invention is patentable over Cousens et al. in view of Cohen et al. for the following reasons. The Examiner's section 103 rejection is discussed below in the context of the new claims.

As defined by the new claims, the instant invention is far

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more than a fusion polypeptide employing "a selectively cleavable link," as disclosed in the Cousens et al. '209 parent application, at which a cleavage agent acts to selectively cleave a precursor polypeptide. A critical distinction between the Cousens et al. '209 disclosure and Applicants' invention is that Applicants' cleavage site alone is not that feature of Applicants' invention which imparts operativeness. Rather, Applicants' combination of a distinct hinge region together with a cleavage site operates to permit ready release of said target polypeptide from the precursor polypeptide. This type of physico-chemical cooperation between said cleavage site and said hinge region achieved by the instant invention is precisely articulated in the newly submitted claims. No such teaching or suggestion of an operative combination of a distinct cleavage site and a distinct hinge region appears in the Cousens et al. '209 parent application.

In fact, as defined in new claim 62, the operativeness of Applicants' claimed combination is further supported by the unexpected observation that said target polypeptide itself is not cleaved at the same rate as is the cleavage site. That is, the combination of a distinct hinge region with a particular cleavage site within the claimed fused polypeptide serves to present the fused polypeptide to the cleavage agent such that preferential cleavage at the cleavage site occurs. Consequently, recovery of intact, uncleaved target polypeptide is significantly facilitated. No such teaching or suggestion concerning operativeness can be found in the Cousens et al. '209 parent application. This feature of Applicants' claimed combination further supports the conclusion that their invention is patentably unobvious over the Cousens et al. '209 parent application.

The subject office action states that the '209 reference implicitly teaches a hinge-like flexible structure which promotes cleavage. ["[T]hese features are implicit in this reference."] Similarly, the subject office action further states that artisans

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like Cousens et al. "would have recognized the motive behind the use [of] a flexible linker without it being explicitly stated." Applicants respectfully point out that it is a well-settled legal principal that in order for a rejection to be based upon a property that is inherent in the prior art, such inherency must be necessary and certain. In Interchemical Corp. v. Watson, 145 F. Supp. 179, 182 (D.D.C. 1956), aff'd 251 F.2d 390 (D.C. Cir. 1958), the court stated that "[t]he law requires that inherency may not be established by possibilities or probabilities. The evidence must show that the inherency is necessary and inevitable."

Given the subject matter of the Cousens et al. '209 disclosure, the necessary and certain legal standard can not be met. There is no basis for properly concluding that a flexible, hinge-like structure with the operativeness claimed by Applicants is a necessary and certain consequence of use of the Cousens et al. cleavage site. The unpredictable physico-chemical nature of proteins, and the structural/conformational properties thereof, do not lend themselves to a "necessary and inevitable" characterization, thereby negating any assertions of inherency contained within the subject office action. As stated by the court in In re Grasselli and Hardman, 218 U.S.P.Q. 769, 776 (C.A.F.C. 1983), "obviousness cannot be predicated on that which is unknown."

The subject office action also states that "[i]t is inconceivable that Cousens et al. or any artisan with a working knowledge of protein chemistry would not have known" the benefits of a flexible, hinge-like structure. As stated above, Cousens et al. failed to even recognize the problem solved by Applicants, and contained no teaching or suggestion of the claimed combination of elements or the unexpected results obtained in using it. Given the absence of a factual basis for this conclusion in the prior art, Applicants respectfully submit that it is an improper basis for rejection of the Applicants' claimed invention. If, however, the Examiner is in possession of factual

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knowledge supportive of this conclusion, Applicants respectfully request that Examiner submit an affidavit pursuant to 37 C.F.R. 1.107(b) explicitly setting forth his knowledge so that Applicants may respond accordingly.

The proper standard for a rejection under section 103 is set out in Graham v. John Deere Co., 148 U.S.P.Q. 459 (S.Ct. 1966). In order for an obviousness rejection under section 103 to be proper, the Examiner must show that the essential elements defined by the Applicants' claims as they relate to the "subject matter as a whole" are taught or suggested by the cited art. In the case of the instant invention, it is Applicants' claimed combination which is inventive. Applicants' new claims define a combination of distinct and separate amino acid sequences which endows the overall fused polypeptide with certain conformational and structural features operable to facilitate selective recovery of a target polypeptide. Such a combination is neither taught nor suggested by the prior art.

Under the proper standard for obviousness, every attempt at showing a prima facie case of obviousness must show cognizance of all of the differences between the claimed subject matter and the prior art, as well as for the effect those differences create. Id. at 467. The differences between Applicants' claimed subject matter and the Cousens '209 reference were discussed above. These differences would not have been obvious to one skilled in the art because the cited references do not teach, suggest, or motivate one to practice the Applicants' claimed combination invention.

Cohen et al. U.S. 4,743,679 [hereinafter referred to as '679] teaches that the elimination of cysteine residues in a leader-type peptide prevents possible interactions and interferences with the obligatory formation of disulfide bridges. The Examiner suggests that this teaching, in view of Cousens et al., renders Applicants' claimed combination unpatentably obvious. Applicants believe that the Examiner's rejection is predicated upon an improper combination of the Cousens et al.

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'209 reference with the Cohen et al. '679 reference. The law of combination of references is clearly stated in Eversharp, Inc. v. Fisher Pen Co., Inc., 132 U.S.P.Q. 423 (N.D.Ill. 1961):

In order for one to defeat a meritorious patent it is not enough to pick out isolated features in earlier prior art patents, combine them in one particular way with hindsight acquired only from the patent under attack, and then say that no invention would have been involved in selecting those particular features and combining them in the particular way in which the patentee did.

In fact, in citing this Eversharp case, the district court in Matherson-Selig Co. v. Color Card, Inc., 154 U.S.P.Q. 265 (N.D.Ill. 1967) stated:

References may be combined to establish obviousness, but they must suggest the combination itself and not merely all of the elements which make up the combination, for it is the combination and not the individual elements that comprise the invention.

The claimed combination is unique and achieves results that would not have been obvious to a skilled artisan relying solely upon Cousens et al. with or without Cohen et al., since neither reference recognized the problem solved by Applicants. One skilled in the art relying upon these reference would not have been motivated to combine them because the Cousens et al. and Cohen et al. references, taken singly or combined, do not teach or suggest the combination of separate and distinct amino acid sequences which comprises the Applicants' claimed subject matter as a whole, nor the advantages obtained thereby. Furthermore, neither Cousens et al. or Cohen et al. provides the required teaching, suggestions, or incentive which would have led one of ordinary skill in the art to combine the relevant teachings of the references.

Finally, Applicants direct the Examiner to new claims 65-68

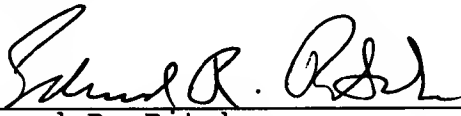
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which define a recombinant DNA encoding Applicants' combination polypeptide invention. In fact, new claims 65-69 parallel very closely certain claims published in divisional companion patent U.S. 5,013,653 which issued on May 7, 1991. Applicants believe that the issuance of claims corresponding to a recombinant DNA serving as a template for a fused polypeptide comprising a combination as set forth in this application strongly suggests that the fused polypeptide itself is also a patentable invention. If the DNA template is patentable subject matter in compliance with the standards of section 103, so too is the companion fused polypeptide which is the subject matter of this application. Applicants respectfully submit that to conclude otherwise is to apply non-uniformly the legal standards underlying section 103.

Respectfully submitted,

Date:

12/23/93


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In re Wertheim and Mishkin

**(CCPA)
209 USPQ 554**

Decided Apr. 9, 1981

No. 80-603

U.S. Court of Customs and Patent Appeals

Headnotes

PATENTS

1. Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Anticipation -- Patents -- Unclaimed disclosure (§ 51.2223)

Section 102(e) is codification of rule of *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 US 390, which held that material disclosed but not claimed in U.S. patent may be used as reference to anticipate later invention as of date reference application was filed, rather than date patent finally issued.

2. Patentability -- Anticipation -- In general (§ 51.201)

Patentability -- Anticipation -- Combining references (§ 51.205)

Patentability -- Invention -- In general (§ 51.501)

Pleading and practice in Patent Office -- Rejections (§ 54.7)

Sections 102(e)/103 rejection is one utilized where Section 102(e) alone may fail since not every material limitation of claimed invention is disclosed in reference; that reference, referred to as "prior art" in Section 103, may be combined with another to support obviousness rejection.

3. Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Anticipation -- Patents -- On copending applications (§ 51.2219)

Patentability -- Anticipation -- Patents -- Unclaimed disclosure

Patentability -- Invention -- In general (§ 51.501)

Pleading and practice in Patent Office -- Rejections (§ 54.7)

In re Switzer, 77 USPQ 156, 159, since its reasoning is unclear, lends no aid to resolution of dispute of what patent disclosure, or portion of it, which has been carried over through chain of applications, may be traced back to earlier application and given its effective date, and then combined with secondary reference to reject later filed claims under Sections 102(e)/103.

4. Patentability -- Anticipation -- Patent applications (§ 51.219)

Abandoned application by itself can never be reference.

5. Patentability -- Invention -- In general (§ 51.501)

"The invention" referred to in Section 103 is, in every case, nothing more nor less than subject matter being claimed by applicant, which is starting point of all inquiry about obviousness.

6. Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Anticipation -- Publications -- In general (§ 51.2271)

Disclosure of primary reference patent that shows all of claimed invention and that issued at least four years and nine months subsequent to that invention's entitlement date is not prior art with respect to that invention as a patent or as a publication.

7. Amendments to patent application -- New matter (§ 13.5)

Applications for patent -- Continuing (§ 15.3)

Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Anticipation -- Patents -- On copending applications (§ 51.2219)

Patentability -- Anticipation -- Patents -- Unclaimed disclosure (§ 51.2223).

Patentability -- Invention -- In general (§ 51.501)

Approach in which one reaches back to parent application of primary reference patent, retrieves subject matter that was "carried over" into patent, and combines it with secondary reference to find invention obvious, although embraced in *In re Wertheim*, 191 USPQ 90, ignores, in situations where there are continuation in part applications, rationale behind *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 US 390, and *Hazeltine Research Inc. v. Brenner*, 147 USPQ 429, that "but for" delays in Patent Office, patent would have earlier issued and would have been prior art known to public; continuation-inpart application adds new matter to previously-filed parent application; thus, type of new matter added must be inquired into, for if it is critical to claimed invention's

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patentability, patent could not have issued on earlier filed application and theory of Patent Office delay has no application; additionally, Section 120 enters picture at this point in analysis, for phrase in Section 102(e), "on an application for patent," necessarily invokes Section 120 rights of priority for prior co-pending applications; Patent Office that wishes to utilize against applicant part of patent disclosure found in application filed earlier than date of application that became patent must demonstrate that earlier-filed application contains Sections 120/112 support for invention claimed in reference patent; patent that could not theoretically have issued day application was filed is not entitled to be used against another as "secret prior art," rationale of *Milburn* being inapplicable; in other words, "secret prior art" doctrine of *Milburn* and *Hazeltine* are extended only so far as logic of those cases requires.

8. Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Anticipation -- Patents -- Unclaimed disclosure (§ 51.2223)

Patentability -- Invention -- In general (§ 51.501)

Reference patent whose application does not describe invention at issue, as claimed, cannot be used as reference under Section 102(e) alone against that application as of reference application's date.

9. Applications for patent -- Continuing (§ 15.3)

Patentability -- Anticipation -- Patents -- On copending applications (§ 51.2219)

Conditions under which filing date earlier than that of last in series of applications on which patent

issues may be accorded to patent with respect to any given claimed subject matter are set forth in Section 120.

10. Applications for patent -- Continuing (§ 15.3)

Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Invention -- In general (§ 51.501)

Specification -- Sufficiency of disclosure (§ 62.7)

Sections 102(e), 120, and 112 speak with reference to some specific claimed subject matter by use of terms "for an invention," "as to such invention," "of the invention," and "his invention"; questions of description, disclosure, enablement, anticipation, and obviousness can only be discussed with reference to specific claim that identifies "the invention" referred to in statute sections.

11. Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Invention -- In general (§ 51.501)

Specification -- Sufficiency of disclosure (§ 62.7)

Invention claimed in primary reference patent that does not find supporting disclosure in compliance with Section 112, as required by Section 120, in one of its applications, as well as its accompanying disclosure, cannot be regarded as prior art as of that application's filing date.

12. Amendments to patent application -- New matter (§ 13.5)

Applications for patent -- Continuing (§ 15.3)

Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Anticipation -- Patents -- On copending applications (§ 51.2219)

Patentability -- Invention -- In general (§ 51.501)

New matter can add material limitations that transform unpatentable invention, when viewed as whole against prior art, into patentable one; continuation-in-part application, unlike continuation application, does not necessarily insure that all critical aspects of later disclosure were present in parent; thus, in such

situation, only application disclosing patentable invention before new matter's addition, which disclosure is carried over into patent, can be relied upon to give reference disclosure benefit of its filing date for purpose of supporting Sections 102(e)/103 rejection.

13. Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Specification -- Sufficiency of disclosure (§ 62.7)

Only date primary reference patent that issued after series of applications has under Section 102(e) is filing date of application on which it issued; any earlier U.S. filing date for patent necessarily depends on further compliance with Sections 120 and 112.

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14. Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Invention -- In general (§ 51.501)

Specification -- Sufficiency of disclosure (§ 62.7)

Portions of original reference patent's disclosure that do not constitute full, clear, concise, and exact description in accordance with Section 112, first paragraph, of invention claimed in reference patent, else application could not have matured into patent within Section 102(e) rationale of *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 US 390, cannot be "carried over" for purpose of awarding filing dates, to be "prior art" under Section 103.

15. Applications for patent -- Continuing (§ 15.3)

Patentability -- Anticipation -- Patents -- In general (§ 51.2211)

Patentability -- Anticipation -- Patents -- Unclaimed disclosure (§ 51.2223)

Patentability -- Invention -- In general (§ 51.501)

Dictum in *In re Lund*, 153 USPQ 625, that continuation in part application is entitled to parent application's filing date as to all subject matter carried over into it from parent application for purposes of utilizing patent disclosure as evidence to defeat another's right to patent is modified to further include requirement that application whose filing date is needed to make rejection, must disclose, pursuant to Sections 120/112, invention claimed in reference patent; where continuation-in-part applications are

involved, logic of holding of *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 U.S. 390, would otherwise be inapplicable; without patentable invention's presence, no patent could issue "but for the delays of" Patent Office.

Particular patents -- Drying Method

Wertheim and Mishkin, Drying Method, rejection of claims 37, 38, and 44, reversed.

Case History and Disposition:

Appeal from Patent and Trademark Office Board of Appeals.

Application for patent of John H. Wertheim and Abraham Rudolph Mishkin, Serial No. 96,285, filed Dec. 8, 1970.

From decision rejecting claims 37, 38, and 44, applicants appeal. Reversed.

See also 191 USPQ 90 .

Attorneys:

William H. Vogt, III, Morris N. Reinisch, Dennis P. Tramaloni, and Marcus J. Millet, all of New York, N.Y., for appellants.

Joseph F. Nakamura and Gerald H. Bjorge for Patent and Trademark Office.

Judge:

Before Markey, Chief Judge, and Rich, Baldwin, Miller, and Nies, Associate Judges.

Opinion Text

Opinion By:

Rich, Judge.

This appeal is from the decision of the Patent and Trademark Office (PTO) Board of Appeals (board) affirming the final rejection under 35 USC 103 of claims 37, 38, and 44 in application serial No. 96,285, filed by Wertheim and Mishkin (Wertheim) December 8, 1970, entitled "Drying Method." We reverse.

At the outset, we note the prolonged, if not tortuous, prosecution of the present application. During the past decade, this application has appeared before us once before, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (1976) (Wertheim I), and has been involved in an aborted interference, No. 99,688, with a

reference patent used in the instant rejection, United States Patent No. 3,482,990 to Pfluger. Only two of the original forty-three claims are now before us, dependent claims 37 and 38, original claim 2 having been rewritten as independent claim 44, the principal claim on appeal.

The Invention

While the present and related inventions were described in Wertheim I, we give a synopsis of the claimed process, which is for freeze-drying coffee extract. Hot water is percolated through roasted and ground coffee beans to produce an aqueous coffee extract. After concentrating the extract to a point where its solids content is between 35% and 60%, it is charged with a gas to yield a foam. The pressure of the foam environment is regulated to be at least atmospheric pressure so as to avoid evaporative cooling, i.e., thermal loss resulting from vaporization of the aqueous portion of the extract. In the preferred embodiment of claim 37, the foam density is maintained between 0.4 grams per cubic centimeter (gm/cc) and 0.8 gm/cc. Finally, the foam is frozen at the regulated pressure and freeze-dried in a conventional manner. During these "cold" steps, the foam temperature allegedly must be maintained

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below the eutectic temperature of the extract, i.e., the lowest possible constant melting point of the mixture to avoid the loss of flavoring compounds through evaporation.

Applications and References

Since both appellants' case and the effective date of one of the references depend on earlier filing dates, we provide the chronological table below prior to discussing the reference disclosures and the rejection.

Table set at this point is not available. See table in hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.

The References

The primary reference, cited by the examiner under 35 USC 102(e), is the Pfluger patent which issued on the last of a series of four applications, as shown above. The patent discloses a foam/freeze-dried coffee process for retaining volatile aromatics during the foaming and freezing steps. Improved retention of these compounds is supposedly achieved by avoiding evaporative cooling of a concentrated coffee extract. The Pfluger patent, like appellants' application, calls for maintaining the foam below its eutectic temperature. Claim 2 of the Pfluger patent was copied by appellants for interference purposes and is claim 44 on appeal.

The Pfluger application chain developed as follows: Pfluger IV was designated a continuation of Pfluger III, ¹ which was designated a continuation-in-part (CIP) of Pfluger II, which was designated a CIP of Pfluger I.

Pfluger I did not support all of the limitations of the claims copied from the Pfluger patent. Specifically, it did not disclose concentrating the extract to a solids content of between 35% and 60% prior to foaming. Express disclosure of this limitation did not occur until Pfluger III. It also did not

expressly disclose always creating the foamed extract at at least atmospheric pressure, a limitation first found in Pfluger II.

The Sivetz publication is a secondary reference which discloses a non-foamed, freeze-dried coffee process. The vacuum drying of this process results in flaked coffee. The alleged advantage of this type of instant coffee is its excellent solubility in water. However, Sivetz states that "even under ideal freeze-drying conditions, the volatiles of coffee aroma and flavor are not retained any better, if as well, as in spray drying." It goes on to recommend less than 60% water content, and therefore a greater than 40% solids content, in any extract to be freeze-dried.

Flosdorf is an earlier publication also disclosing freeze-drying methods. It states that for economic reasons, one must produce freeze-dried coffee from extracts containing 40% to 50% solids.

The Rejection

In Wertheim I, this court held that interference claims 2 (now 44), 37, and 38 of appellants' still pending application were entitled to the benefit of the Swiss Wertheim application. Approximately eleven months later the PTO declared Interference No. 99,688 between the present application and the Pfluger patent. Appellants were designated senior party because of their Swiss filing date. Pfluger was made junior party.

After considering four motions by Pfluger, the Primary Examiner moved sua sponte to dissolve the interference and granted his own motion. In support of his decision, he stated that the claims copied by Wertheim were unpatentable under 35 USC 102(e) and/or 35 USC 103 over the Pfluger I and II disclosure in view of Sivetz.

Ex parte prosecution was resumed and the claims on appeal were rejected. The great-grandparent of the Pfluger patent, Pfluger I, was said to be "carried forward" into the patent. The missing limitation in Pfluger I was supposedly found in Sivetz.

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Essentially, the rejection was based on, and was a modification of, the grounds stated in the dissolution decision. Appeal was then taken to the board.

After admitting in his Answer that the 1961 Pfluger application "fails to set forth specifically the values of the solids content within the range set forth in the Wertheim claims (35 to 60%)," the examiner said:

The question which must be considered and answered is what one with ordinary skill in the art would derive from the following teaching on page 3 of the 1961 Pfluger application:

In many applications such foaming can be considerably increased by concentrating the solution or suspension to a relatively high solids content prior to incorporation of air or other gas such as nitrogen therein by whipping.

The answer to the question presented is that it would be prima facie obvious to those with the ordinary skill in the art [to] which the subject matter relates to preconcentrate to the values set

forth in the Wertheim claims. This conclusion is reached by the following reasoning.

A patent specification is directed to those skilled in the art. Clearly, the data in the 1961 disclosure is not limited to the specific values set forth in the examples. The 1961 Pfluger disclosure teaches "concentrating * * * to a relatively high solids content" (page 3). When this teaching is viewed in the context of what is known in the art in the time frame of the instant subject matter, it would involve no more than ordinary skill of one in the art to pre-concentrate to the value claimed.

As set forth previously, the record of Wertheim establishes that freeze drying is a well known procedure. Because it is expensive, it is economically advantageous to pre-concentrate prior to freeze drying. Sivetz et al. cited above, amplify on this (page 506 in particular). Sivetz et al. point out that freeze drying is much more expensive than spray drying. Sivetz et al. also point out that (page 506 last two sentences):

In freeze and belt vacuum drying, water content should be less than 60 percent. This reduces water evaporation load and drying cost.

Accordingly when the Pfluger patent is read in light of the 1961 application disclosure, whose date patentees are entitled to for benefit of filing date, taken with Sivetz et al., it would be obvious to the ordinary worker in the art to pre-concentrate to the value set forth in the claims.

The Board

The board reversed the rejection on §102(e) alone, but affirmed the §§102(e)/103 rejection. In doing so, it stated that the "Pfluger disclosure" was available as a reference under 35 USC 102(e). Yet, the §102(e) rejection was disapproved because not every material element in the appealed claims was disclosed in what the board called the "principal reference."

In awarding the Pfluger patent the benefit of the Pfluger I filing date, the board found "considerable guidance" from those portions of this court's opinion in Wertheim I dealing with process claims 6-14 and 16-29, supra 541 F.2d at 266 et seq., 191 USPQ at 99 et seq. It further noted that the disclosure from Pfluger II had been "carried forward into the patent." The Pfluger II disclosure was then compared to the Pfluger I disclosure, which states in pertinent part (quoted by the board):

In accordance with the present invention the foregoing objectives are achieved with improved results along the lines indicated by:

(1) freezing a foam containing food or pharmaceutical solids in suspension and/or solution to convert the water content thereof to a crystalline state; and

(2) freeze drying the foamy mass thus created to a stable moisture content while maintaining the moisture thereof in a substantially solid state.

* * *

In many applications such foaming can be considerably increased by concentrating the solution or suspension to a relatively high solids content prior to incorporation of air or other gas such as

nitrogen therein by whipping. Although it is preferred that the foam be created in accordance with the present invention by whipping under atmospheric pressures and temperatures, the foam can also be created by other means such as inducing a superatmospheric pressure on the solution or suspension during agitation thereof (during which agitation extraneous gas such as nitrogen or carbon dioxide may be added) followed by sudden issuance of this solution or suspension from such a confined area of superatmospheric pressure to a reduced area of atmospheric or subatmospheric pressure such as occurs when the solution or suspension is caused to issue through

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an orifice or other suitable valve-operated aperture causing the food solids to foam under the influence of the pressure released. Other means for creating a foam involve the overt introduction to a solution or suspension of such means as dry ice, i.e., solid carbon dioxide in a suitable ground or particulate form, whereby carbon dioxide liberated upon subliming of the "dry ice" causes foaming of the solution or suspension to occur. Similarly, refrigerated air or nitrogen can be introduced to the solution or suspension to cause foaming thereof.

The foam preferably has a high overrun whereby the density of the solution or suspension is changed from 1.0 gm. per c.c. to between .1-.5 gms. per c.c.

Although Pfluger I was said to "not mention 'avoiding evaporation' in connection with the foaming and freezing steps," the board found that this concept was expressed in the Pfluger prosecution as early as Pfluger II. Furthermore, it held that the avoidance of evaporative cooling was inherent in the procedure disclosed in Pfluger I, i.e., the creation of a foam at at least atmospheric pressure and the proscription against allowing the frozen foam to melt while being dried. On this basis, the board held that "the substance of the relevant disclosure in Pfluger I was carried forward into the patent."

The secondary references were held to properly establish the obviousness of "the degree of concentration" claimed in the Pfluger patent as of the filing of Pfluger I. Excerpts from both Sivetz and Florsdorf were quoted to demonstrate that concentrating aqueous coffee extracts above a 30% solids content was well known in the art. However, no distinction was made between concentrating extracts for foamed and non-foamed freeze-drying processes.

Reading the board opinion as a whole, it clearly appears that the obviousness rejection under §§102(e)/103 was sustained on the basis of teachings which the board found in Pfluger I, read as though it were a proper prior art reference, taken with further suggestions gleaned from Sivetz and Florsdorf, the secondary references. The board said:

In conclusion, considering all the evidence, we hold that the Examiner properly relied on Sivetz and Florsdorf as establishing the obviousness of the degree of concentration required by the appealed claims in a process as taught by Pfluger.

Taken by itself, that statement does not show what teaching of Pfluger, out of all four applications, was meant, but the opinion makes clear it was talking about the 1961 Pfluger I application and more particularly, the one sentence therein, previously referred to, which stated:

In many applications such foaming can be considerably increased by concentrating the solution or suspension to a relatively high solids content prior to incorporation of air or other gas such as nitrogen therein by whipping.

Opinion

At the outset, we wish to set forth and characterize the exact nature of the rejection and its statutory basis. While the board stated the rejection to be based upon 35 USC 103, we note that it is more properly viewed as a 35 USC 102(e)/35 USC 103 rejection. Because this distinction is the focal point of our decision to reverse, a short discussion of the nature of this rejection follows.

I. §§102(e)/103 Rejections

[1] Section 102(e), a codification of the rule of *Alexander Milburn Co., v. Davis-Bournonville Co.*, 270 U.S. 390 (1926), reads as follows:

A person shall be entitled to a patent unless --

* * *

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent * * *.

In *Milburn*, a patent infringement suit, the court held that material disclosed but not claimed in a United States patent may be used as a reference to anticipate a later invention as of the date the reference application was filed, rather than the date the patent finally issued.

The plaintiff in that case sued for infringement of Whitford's patent, which had issued on June 4, 1912, after being applied for on March 4, 1911. One Clifford had filed an application for a patent on January 31, 1911, which "gave a complete and adequate description of the thing patented to Whitford but * * * did not claim it." A patent issued to Clifford on February 6, 1912. Whitford could not prove a date of invention prior to his application date and, thus, his date of invention was after the Clifford

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application date but before the date Clifford's patent issued.

Although Clifford's application was not a matter previously "known or used," nor a patent or a printed publication, the Supreme Court reasoned that "the delays of the Patent Office ought not to cut down the effect of what has been done." The Clifford application was thus held to be prior art against the Whitford patent as of the former's filing date.

The Supreme Court in *Hazeltine Research Inc. v. Brenner, Com'r.*, 382 U.S. 252, 147 USPQ 429 (1965), subsequently held that *Milburn* and §102(e) may be applied to determine what is "prior art" under the §103 requirement. Section 103 states in relevant part that

A patent may not be obtained * * * if the differences between the subject matter sought to be patented and the *prior art* are such that the subject matter as a whole would have been obvious

at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. [Emphasis ours.]

While nowhere in Title 35 are the words "prior art" defined, the Senate and House Reports accompanying the 1952 Patent Act state:

[Section 103] refers to the difference between the subject matter sought to be patented and the prior art, meaning what was known before as described in Section 102. S.Rep. No. 1979, 82d Cong., 2d Sess., U.S. Code Cong. & Admin. News at 2399. [The House Report No. 1923 is the same.]

Additionally, one draftsman of and the commentator on the 1952 Act, P. J. Federico, commented that:

The antecedent of the words "the prior art" * * * lies in the phrase "disclosed or described as set forth in Section 102" and hence these words refer to the material specified in Section 102 as the basis for comparison. Federico, Commentary On The New Patent Act, 35 USCA p. 1 at 20 (1954).

Commensurate with the Senate Report and Mr. Federico's commentary, we have held that the term "prior art" refers "to at least the statutory prior art material named in §102." In re Yale, 52 CCPA 1668, 347 F.2d 995, 146 USPQ 400 (1965). See In re Harry, 51 CCPA 1541, 333 F.2d 920, 142 USPQ 164 (1964).

In Hazeltine, the court stated that earlier-filed applications for patents of another describing, although not necessarily claiming, the invention claimed in a later-filed application, are prior art under §102(e) and are available for consideration in support of a §103 obviousness rejection of the later-filed application. See In re Bowers, 53 CCPA 1590, 359 F.2d 886, 149 USPQ 570 (1966). And, for purposes of both §102 and §103 analysis, they are prior art as of their filing dates.

In Hazeltine, Regis filed an application for patent on December 23, 1957. The examiner rejected the claims as obvious under §103 in view of the disclosures of two patents, Carlson and Wallace. Carlson was issued eight years earlier and was clearly a valid reference, Wallace, however, was pending at the time of Regis' application, and had been filed almost four years earlier, prompting Regis to argue that it was not "prior art" because its disclosures were secret and not known to the public. In dismissing this argument, the Supreme Court stated (p. 255, 147 USPQ at 431):

Petitioners suggest * * * that the question in this case is not answered by mere reference to §102(e), because in Milburn, which gave rise to that section, the co-pending applications described the same identical invention. But here the Regis invention is not precisely the same as that contained in the Wallace patent, but is only made obvious by the Wallace patent in light of the Carlson patent. We agree with the Commissioner that this distinction is without significance here. While we think petitioners' argument with regard to §102(e) is interesting, it provides no reason to depart from the plain holding and reasoning in the Milburn case. The basic reasoning upon which the Court decided the Milburn case applies equally well here. When Wallace filed his application, he had done what he could to add his disclosures to the prior art. The rest was up to the Patent Office. Had the Patent Office acted faster, had it issued Wallace's patent two months earlier, there would have been no question here. As Justice Holmes said in Milburn, "The delays

of the patent office ought not to cut down the effect of what has been done." P. 401.

[2] The §§102(e)/103 rejection, thus, is one utilized where §102(e) alone may fail because not every material limitation of the claimed invention is disclosed in the reference. That reference, referred to as "prior art" in §103, may be combined with another to support an obviousness rejection.

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See *In re Caveney*, 55 CCPA 721, 386 F.2d 917, 155 USPQ 681 (1967).

A different situation arises where, unlike *Milburn* or *Hazeltine*, the reference patent issues not after only one application, but after a series of applications. In other words, after permitting the use of a patent reference in both §102(e) and §§102(e)/103 rejections as of the reference filing date, the next question confronting the courts was what filing date was to be accorded a reference patent which issues after a series of applications. How far back can one extend the effective date of a reference patent as "prior art" in such a case?

II. 102(e) and Continuation Applications

In *In re Lund*, 54 CCPA 1361, 376 F.2d 982, 153 USPQ 625 (1967), this court was called upon to decide whether a certain compound disclosed in Example 2 of an application filed by Margerison on September 29, 1958, was available as prior art as of that filing date to reject Lund's claims, which were presented in an application filed almost a year later. Although Margerison abandoned the application, he had filed a continuation-in-part application, without Example 2, which resulted in issuance of the reference patent. The court stated it to be

* * * well settled that where a patent purports on its face to be a "continuation-in-part" of a prior application, the continuation-in-part application is entitled to the filing date of the parent application as to all subject matter *carried over* into it from the parent application, whether for purposes of obtaining a patent or subsequently utilizing the *patent* disclosure as evidence to defeat another's right to a patent. [Emphasis in original.]

In deciding what had been "carried over," the court held that merely designating an application as a continuation-in-part was not sufficient to incorporate by reference the disclosure of the abandoned application into the patent disclosure, "as if fully set out therein." The court concluded that:

It seems to us that the sine qua non of §102(e) and the *Milburn* case is that, consistent with the gain to the public which the patent laws mean to secure, a *patent must issue* which contains, explicitly or implicitly, the description of an invention which is to be relied on to defeat a later inventor's patent rights. It does not appear that the patentee here has done "all that he could do to make his description public," *Milburn*, *supra*, for the language Margerison employs is not sufficient to incorporate the description of his earlier application into the patent and the description which the Patent Office relies upon appears only in the earlier application. [Emphasis in original.]

In *In re Klesper*, 55 CCPA 1264, 397 F.2d 882, 158 USPQ 256 (1968), the PTO rejected Klesper's claims as fully anticipated by a Frost patent under §102(e) because Klesper could not antedate the

effective date of the reference. The issue before this court was what that effective date was. Frost and Klesper had filed applications for patent on October 20, 1955, and September 18, 1956, respectively. Frost then filed a continuation-in-part application on April 1, 1959, which application culminated in the issuance of a patent on January 8, 1963, containing the 1959 disclosure. On January 6, 1964, Klesper filed a continuation-in-part application. The PTO gave the Frost patent the benefit of its parent filing date, October 20, 1955.

The court stated that §102(e) was a codification of the historical treatment of a U.S. patent disclosure "as prior art as of the filing date of the earliest U.S. application to which the patent is entitled, provided the disclosure was contained in substance in the said earliest application." Thus, the determinative question became whether or not the subject matter of the appealed claims was disclosed both in the abandoned application and in the patent. The court agreed with the PTO conclusion that:

* * * Frost's abandoned application discloses the subject matter of the appealed claims and it is admitted that that subject matter is contained in the reference patent. It follows that it was carried forward and that the effective date of the patent as a prior art reference against the appealed claims under section 102(e) is October 20, 1955, which antedates appellant.

The Klesper case thus dealt with the dating back of a patent reference to gain the benefit of an earlier filing date. Lund was not so concerned, however, and considered only whether a disclosure appearing *only* in an abandoned application was to be regarded as prior art under §102(e). Both cases involved rejections based upon §102(e) alone.

[3] We now come to the situation in the instant case, one which we believe has not heretofore been before us. ² What patent dis

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closure, or portion thereof, which has been "carried over" through a chain of applications, may be traced back to an earlier application and given its effective date, and then combined with a secondary reference to reject later filed claims under §§102(e)/103?

III. Continuing Applications and Rejections Under §§102(e)/103

We begin by noting the factual differences between this case and *Hazeltine*. In *Hazeltine* the Court utilized *all* of the reference patent disclosure as prior art. But because that disclosure was insufficient to support a rejection under §102(e) alone, the Court approved combining it with a second reference for purposes of determining obviousness. In this case, utilization of all the reference patent disclosure would, of course, suffice to support a rejection, *if* its date is early enough, because Wertheim copied the Pfluger patent claims for interference. *That* disclosure, however, cannot be given an effective filing date early enough to antedate the Wertheim Swiss filing date. See *Wertheim I*. The PTO, therefore, has abstracted a *part* of the entire patent disclosure set forth in a Pfluger application dated prior to the Wertheim Swiss filing date, found it "carried over" into the patent, and, on the supposed authority of Lund and *Hazeltine*, used it in combination with a second reference to reject the Wertheim claims as obvious. For reasons which follow, we hold that was erroneous.

A. The Rejection

In the instant case, the examiner relied on Pfluger patent 3,482,990 and the Sivetz et al. publication and rejected the claims "under 35 USC 102(e) and/or 103 as unpatentable over Pfluger * * * in view of Sivetz et al.," saying that "Pfluger is entitled to the benefit of" Pfluger's 1961 filing date. The examiner also said, "Note 35 USC 120," but made no specific application thereof. Without addressing the relevance of this statute, the board said:

We will *not* affirm the rejection based solely on 35 U.S.C. 102(e), although we recognize that the Pfluger disclosure is available as a reference under the provisions of 35 U.S.C. 102(e).

Here one of the contested issues is whether the *principal reference* discloses concentrating the extract to the specific "higher solids level of between 35% and 60% soluble solids." Secondary references may well establish the *obviousness* of the quoted figures, but in that case *the rejection is under 35 U.S.C. 103* rather than *rejection is under 35 U.S.C. 103* rather than 35 U.S.C. 102. [Emphasis ours.]

The board was there distinguishing *In re Samour*, 571 F.2d 559, 197 USPQ 1 (CCPA 1978), wherein this court said, "every material element of the claims was disclosed in the principal reference." It thus appears that the board was pointing out, backhandedly, that every material element of the Wertheim-Pfluger claims was *not* disclosed in the "principal reference."

[4] It is of further interest to consider what the board meant in the above quotation by "principal reference" in referring to the instant case. The examiner's "principal reference" was the Pfluger patent; but there is no question that it discloses every element of the claims on appeal, which claims were copied by Wertheim from that patent. Therefore, the board could not have been referring to the Pfluger *patent* as the "principal reference" and the only possible deduction is that it was referring to the Pfluger I application. Therein lies its first error, for an abandoned application by itself can never be a reference. In any event, on the basis of the failure of disclosure in Pfluger I noted above, the board refused to sustain the rejection on §102(e) alone, and affirmed only the rejection of the claimed invention as obvious under §103.

B. Section 103

[5] In every case, "the invention" referred to in §103 is nothing more nor less than the subject matter being claimed by the applicant, which is the starting point of all inquiry about obviousness. Claim 44, the independent claim at bar, reads:

An improved process for minimising [sic] loss of volatiles during freeze-drying of coffee extract which comprises obtaining coffee extract, concentrating said extract to a higher solids level *of between 35% and 60% soluble solids*, foaming said concentrated extract to a substantial overrun by injection of a gas into said extract at at least atmospheric pressure *to thereby avoid evaporative cooling due to evaporation of water* in said extract during said foaming, freezing said foam to below its eutectic point at at least atmospheric

pressure *while avoiding evaporative cooling*, and freeze-drying said extract at below the eutectic temperature of said extract. [Emphasis ours.]

Claim 37 merely adds the limitation that the overrun density be between 0.4 to 0.8 gm/cc, and claim 38 adds a different limitation, freeze drying at a pressure of about 150 to 175 microns.

[6] Looking now to the basis of the §103 rejection, regardless of what may have been in the minds of the board members, the principal reference to support this rejection is Pfluger patent No. 3,482,990. Does it show that all or part of the claimed invention was in the "prior art"? Of course, it shows *all* of the claimed invention. The claims were copied from it by Wertheim and if it did not contain a complete description of the claimed invention it would not have been issued by the PTO. It issued, however, on December 9, 1969, and Wertheim has already been held entitled to an invention date at least as early as April 2, 1965, so what evidence does the patent contain that the patent disclosure was "prior art" with respect to Wertheim? As a patent or as a publication, the answer, of course, is none. How, then, does it function as a §103 "reference"? It is at this point that the PTO invokes §102(e) on the authority of Hazeltine and makes the argument next to be described.

C. Sections 102(e) and 120

We are asked by the PTO to apply the "carried over" principle set forth in Klesper to the present §§102(e)/103 rejection. Specifically, the solicitor argues that since this court said in Wertheim I that Pfluger II was "carried forward" into the Pfluger patent, and Pfluger I discloses essentially the same invention as Pfluger II, the Pfluger reference patent must be awarded the benefit of the Pfluger I filing date.³

In responding to this argument, we first note that the Pfluger patent issued after a series of applications, the initial one (I), two continuation-in-part applications (II and III), and a continuation application (IV). Let us assume that Pfluger I disclosed subject matter A. Because two continuation-in-part applications followed, II may be said to contain subject matter AB, B representing new matter, and III may be said to contain ABC, C representing the additional new matter in that application. Continuation application IV, of course, also contains subject matter ABC.

Instead of determining what filing date the Pfluger *patent* was entitled to as a §102(e) reference for purposes of the §§102(e)/103 rejection, however, the board relied upon the language in Lund, that a disclosure which is "carried over" into the patent from previous applications may be used to defeat the patent rights of another inventor. In other words, rather than examining the Pfluger patent in the light of §§120 and 112, it reached back to Pfluger I and retrieved A, found it "carried over" into the patent and combined it with a secondary reference to find the Wertheim invention obvious.

[7] Although this court apparently embraced this procedure in Wertheim I, such an approach in a situation where there are continuation-in-part applications ignores the rationale behind the Supreme Court decisions in Milburn and Hazeltine that "but for" the delays in the Patent Office, the patent would have earlier issued and would have been prior art known to the public. The patent disclosure in Milburn was treated as prior art as of its filing date because at the time the application was filed in the Patent Office the inventor was presumed to have disclosed an invention which, but for the delays inherent in prosecution, would have been disclosed to the public on the filing date. A continuation-in-part

application, by definition, adds new matter to the parent application previously filed. Thus, the type of new matter added must be inquired into, for if it is critical to the patentability of the claimed invention, a patent could not have issued on the earlier filed application and the theory of Patent Office delay has no application.

Additionally, it is at this point in the analysis that §120 enters the picture, for the

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phrase in §102(e), "on an *application* for patent," necessarily invokes §120 rights of priority for prior co-pending applications. If, for example, the PTO wishes to utilize against an applicant a part of that patent disclosure found in an application filed earlier than the date of the application which became the patent, it must demonstrate that the earlier-filed application contains §§120/112 support for the invention claimed in the reference patent. For if a patent *could not* theoretically have issued the day the application was filed, it is not entitled to be used against another as "secret prior art," the rationale of Milburn being inapplicable, as noted above. In other words, we will extend the "secret prior art" doctrine of Milburn and Hazeltine only as far as we are required to do so by the logic of those cases.

[8] Initially then, the question becomes the familiar one of which filing date the Pfluger patent is entitled to for various purposes, including its effectiveness as a §102(e) reference under §103 evidencing "prior art." Lund, *supra*. It is clear that it cannot be used as a reference under §102(e) *alone* against the Wertheim invention as of the date of a Pfluger application which does not describe the Wertheim invention, as claimed. See *In re Smith*, 59 CCPA 1025, 458 F.2d 1389, 173 USPQ 679 (1972).

[9] The conditions under which a filing date earlier than that of the last in a series of applications on which a patent issues may be accorded to a patent *with respect to any given claimed subject matter* are clearly set forth in §120:

An application for patent *for an invention* disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States by the same inventor shall have the same effect, *as to such invention*, as though filed on the date of the prior application * * *. [Emphasis ours.]

We omit the balance of the section because there is no question here about compliance with its terms. The first paragraph of §112 reads:

The specification shall contain a written description *of the invention*, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out *his invention*. [Emphasis ours.]

[10] We emphasize that the above noted statutes, §§102(e), 120, and 112, speak with reference to some specific claimed subject matter by use of the terms emphasized. It is axiomatic in patent law that questions of description, disclosure, enablement, anticipation, and obviousness can only be discussed with reference to a specific claim which identifies "the invention" referred to in the statutes.

[11] Thus, the determinative question here is whether the invention claimed in the Pfluger patent finds a *supporting disclosure in compliance with §112*, as required by §120, in the 1961 Pfluger I application so as to entitle that invention in the Pfluger patent, as "prior art," to the filing date of Pfluger I. Without such support, the invention, and its accompanying disclosure, cannot be regarded as prior art as of that filing date.

[12] As previously noted, new matter can add material limitations which transform an unpatentable invention, when viewed as a whole against the prior art, into a patentable one. A continuation-in-part application, unlike a continuation application, does not necessarily insure that all critical aspects of the later disclosure were present in the parent. Thus, in a situation such as this, only an application disclosing the patentable invention before the addition of new matter, which disclosure is carried over into the patent, can be relied upon to give a reference disclosure the benefit of its filing date for the purpose of supporting a §§102(e)/103 rejection.

D. The Pfluger I Disclosure

Although the board and the examiner have tacitly, if not expressly, admitted that Pfluger I does not disclose the claimed invention -- indeed, that fact can be implied from the §103 rejection for obviousness as well as from the board's reversal of the rejection based on §102(e) alone -- we here devote some necessary discussion to this factual issue.

[13] In the course of answering appellants' argument that they had been put into a situation where they could not contest priority with Pfluger or take advantage of 37 CFR 1.131, the board said:

This situation arises because, under 35 U.S.C. 102(e), the Pfluger patent has an effective date, with respect to the relevant subject matter, of March 24, 1961. Appellants have offered no evidence to antedate said date.

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The only date the Pfluger patent has *under §102(e)* is February 10, 1969, the filing date of Pfluger IV, the application on which the patent issued. Any earlier U.S. filing date for the patent necessarily depends on further compliance with §§120 and 112. The board appears to have assumed the existence of the very point at issue here -- whether the patent reference *is* entitled to a March 24, 1961, filing date.

We take note of two claim limitations missing from Pfluger I but present in the Pfluger patent which answer the question of whether to award the 1961 filing date to the §102(e) reference patent disclosure. Pfluger I did not expressly disclose either concentrating the coffee extract to a 35% to 60% solids content, or avoiding evaporative cooling during the foaming and freezing steps. If either limitation, later added as new matter, resulted in the disclosure of a patentable invention for the first time, it is relevant to our determination of whether the Pfluger patent receives the benefit of the Pfluger I filing date.

The board did not "attach any significance" to the absence of express language disclosing the avoidance of evaporative cooling. Since the Pfluger I application disclosed gas injection into the extract "at at least atmospheric pressure," the board held that the above concept was inherently disclosed in the

Pfluger I method.

Moreover, the board gave little weight to the addition of a solids content range in Pfluger III. Even though the examples in Pfluger I did not illustrate concentrating coffee extracts above 30%, the general statement in Pfluger I about concentrating extracts was said not to be limited in scope to the specific examples. Thus, the board apparently did not find either of the above claim limitations to be new matter, much less relevant new matter.

A closer examination of the Pfluger file history reveals that the above limitations were relevant, indeed, critical new matter. From Pfluger II on, the patentee argued with the examiner over that feature of his process which he believed made the invention patentable -- the avoidance of evaporative cooling. However, it was not until after the filing of Pfluger III that the first allowance of claims occurred. There the patentee successfully distinguished the prior art by expressly stating the conditions under which such cooling is avoided. Both at least a 35% solids content and foaming under "conditions which avoid the evaporation of water" were allegedly necessary for allowance. It was the combination of these steps, and others, which was held to be a patentable invention and deemed allowable by the examiner in Pfluger III. In fact, during the prosecution of Pfluger IV, the examiner required that Pfluger specify the minimum level of concentration for the coffee extract -- at least 35%.

[14] The board erred in ruling that since "the substance of the relevant disclosure in Pfluger I was carried forward into the patent," that same disclosure in the reference patent was entitled to the Pfluger I filing date, *even though the entire patent was not*. While some of the reference patent disclosure can be traced to Pfluger I, such portions of the original disclosure cannot be found "carried over" for the purpose of awarding filing dates, unless that disclosure constituted a full, clear, concise and exact description in accordance with §112, first paragraph, of the invention claimed in the reference patent, else the application could not have matured into a patent, within the Milburn §102(e) rationale, to be "prior art" under §103.

The two claim limitations of the reference patent missing from Pfluger I were a necessary part of the only patentable invention ever set forth in the Pfluger file history. These limitations, however, were neither expressly nor inherently part of the original Pfluger disclosure. Absent these steps, the Pfluger I filing date cannot be accorded to the Pfluger patent reference. Without that date, the reference does not antedate Wertheim's alleged actual reduction to practice and cannot be combined with another reference to support a §103 rejection.

To look at it another way, without the benefit of the Pfluger I filing date, that part of the reference patent disclosure relied upon cannot be said to have been incipient public knowledge as of that date "but for" the delays of the Patent and Trademark Office, under the Milburn rationale. Here, it cannot be said to have been "carried over" into the reference patent for purposes of defeating another's application for patent under §§102(e)/103.

[15] The dictum in Lund, ⁴ supra, that * * * the continuation-in-part application is entitled to the filing date of the

parent application as to all subject matter *carried over* into it from the parent application * * * for purposes of * * * utilizing the *patent* disclosure as evidence to defeat another's right to a patent * * * [emphasis in original]

is hereby modified to further include the requirement that the application, the filing date of which is needed to make a rejection, must disclose, pursuant to §§120/112, the invention claimed in the reference patent. Where continuation-in-part applications are involved, the logic of the Milburn holding as to secret prior art would otherwise be inapplicable. Without the presence of a patentable invention, no patent could issue "but for the delays of" the PTO.

Conclusion

Since the patent disclosure used in the present rejection is not effective as a reference as of the Pfluger I filing date, the decision of the board affirming the §§102(e)/103 rejection of claims 37, 38, and 44 is *reversed*.

Reversed.

Footnotes

Footnote 1. Pfluger III received a notice of allowance but did not issue. Instead, Pfluger filed a continuation, Pfluger IV.

Footnote 2. A similar fact situation may have been before this court in *In re Switzer*, 35 CCPA 1013, 1019, 166 F.2d 827, 831, 77 USPQ 156, 159 (1948). However, because the reasoning of the court is unclear, the opinion lends no aid to resolution of the dispute at hand.

Footnote 3. In *Wertheim I*, this court apparently relied upon *Lund* and, with regard to "noninterference" claims not now in issue, stated that, "we will apply as prior art under §102(e) * * * those portions of the Pfluger patent disclosure that were carried forward from [Pfluger II]." 541 F.2d at 266, 191 USPQ at 99.

In this case, unlike *Wertheim I*, the board and the examiner rely upon the Pfluger I filing date, not the Pfluger II filing date. Therefore, we need not, and do not, reach any conclusions as to whether the latter date is effective against either the present "interference" claims or the "noninterference" claims of *Wertheim I*. We note, however, that the court in *Wertheim I* evidently did not utilize the principles of law we herein announce, which include a modification of the *Lund* dictum. See note 4 and accompanying text *infra*.

Footnote 4. It was dictum because the only relevant holding in *Lund* was that matter *not* carried over could not be used as evidence of prior art. The quoted passage in the text was not necessary to the decision.

- End of Case -